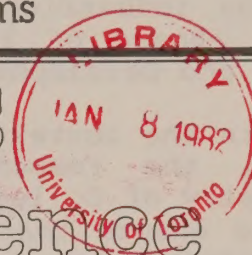




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# Skills

Published by the  
Skills Development Division  
to stimulate career-oriented  
education programs



## Second annual CITC Chairmen's Conference

The second annual CITC Chairmen's Conference was held on October 15, and October 16, 1981, in Toronto.

The Conference, sponsored by the governments of Canada and Ontario, was a unique opportunity for representatives of all the CITCs to exchange information and ideas.

The agenda included a series of informative speakers, two workshop sessions and on the final afternoon a panel discussion.

Kenneth Hunter, Assistant Deputy Minister of the Skills Development Division of the Ministry of Colleges and Universities, delivered the welcoming address. The Honourable Warren Allmand, MP, delivered the keynote address on "Employment Opportunities in the '80s". Peter Miles, member of the Task Force on Labour Market Development in the 80's, spoke on his task force's findings, concentrating on "Training to meet Skills Needs". Robert Thomson, Past-Chairman of the Renfrew County Industrial Training Committee, gave the closing address, titled "Where We Go From Here". Highlights of these speeches and a more detailed report on the Conference proceedings will appear in the next issue of Skills.

Workshop topics included: manpower planning in industry and the identification of occupational shortages. Special emphasis was given to such subjects as women in skilled trades and the implications of high-technology.

Woods Gordon Management Consultants delivered a special presentation

titled Tomorrow's Customers--1981, an overview of the Canadian people, markets and economy with emphasis on the future.

The Conference was expanded this year to cover a two-day period affording a greater opportunity to CITC Chairmen to meet informally and exchange experiences, information and problem-solving ideas. Conference costs were shared between the Ontario government and the CITCs. The CITCs paid for travel and accommodation costs; the government provided the Conference facilities, the speakers and the workshop materials along with the meals for the delegates.

As expected, more than 100 delegates participated and all felt that the Conference was an informative and rewarding opportunity to improve the overall operation of CITCs across Ontario and to further improve the delivery of the EST program.

### Training Paths introduced

This issue of SKILLS introduces a new feature--TRAINING PATHS. A Training Path, put simply, outlines the positions, functions and training required in an occupational cluster. The Training Paths are designed for a person planning a career in a particular occupational cluster or for an employer planning to upgrade workers' skills.

Two Training Paths are included in this issue--one on the Food Preparation cluster and another on the Electronics industry.

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## High Technology training announced

The Ontario Government has launched a training program in high-technology industries, as part of the BILD (Board of Industrial Leadership and Development) initiative.

Within the context of the BILD program, the responsibility of the Ministry of Colleges & Universities is to ensure that training efforts correspond to the priorities of Ontario's skill requirements. To achieve this task, MCU will adopt a high technology training strategy aimed at supporting the economic development thrust outlined in BILD.

In order for an activity to be designated as high-technology within the context of a high-technology training strategy, the activity should have substantial bearing on Ontario's industrial development. High-technology shall be considered as any recent or imminent production, distribution or marketing of products in a manner that improves the domestic productivity and the international competitive position of Ontario-based employers.

Initially, this definition of high-technology will be considered to include areas such as microelectronics, computer-assisted design, as well as computer-assisted manufacturing and production. While the high-technology training strategy will apply for all high-technology industries, the initial application under the BILD initiative will be focused on the areas of priority established by BILD with the most pressing skilled manpower requirements.

The Ministry anticipates that these new training initiatives can be delivered via the existing Training in Business and Industry (TIBI) organization within the college system. "High-Technology TIBI training" will be designated as TIBI II. Proposals for training programs under this initiative will be developed co-operatively by employers (or employee associations) and the

Colleges of Applied Arts and Technology according to the following guidelines:

### A Funding Guidelines

Projects will be supported on the following basis:

- (i) training will be for the purposes of upgrading employees and should provide trainees direct access to positions in high-technology activity;
- (ii) there will be no reimbursement to clients for trainee wages; and
- (iii) fees paid to instructors should not normally exceed those paid within the industries concerned.

### B Training Guidelines

- (i) training will be for the purposes of upgrading employees and should provide trainees direct access to positions in high technology activity;
- (ii) there should be a significant on-the-job component, for which there should be a written training plan;
- (iii) training will not compete with existing training programs;
- (iv) the Manpower Training Branch will carry out an evaluation of each training project; and
- (v) all training will take place in Ontario, but instructors may be drawn from wherever expertise is available.

Those employers or employee representatives interested in getting more detailed information about the TIBI II initiative should contact the TIBI manager or consultants at their local College of Applied Arts and Technology.





Ministry of  
Colleges and  
Universities  
Ontario

Hon. Bette Stephenson, M.D., Minister  
Harry K. Fisher, Deputy Minister

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## RELATED POSITIONS

Technical Writer	3351-178
Technical Illustrator	2163-176
Technical Salesperson	5131-114
Electronics Salesperson	5131-130
Instrumentation Mechanic	8588-xxx
Draftsperson	2163-142

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## PUBLICATIONS WHICH MAY BE HELPFUL

Apprenticeship and You

CAAT Chart

Private Vocational School listings

Horizons

They can be obtained from:  
Communications Services Branch  
Ministry of Education/  
Ministry of Colleges and  
Universities  
14th Floor Mowat Block  
Queen's Park  
Toronto

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# Electronics

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## A Training Path

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## CCDO NUMBERS

The numbers listed with occupational descriptions are classification numbers from the Canadian Dictionary and Classification of Occupations (CCDO). All occupational definitions are from the CCDO. This publication is available in most secondary schools, colleges, universities and public libraries.

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## UPGRADING

Upward mobility is possible from positions in lower classifications on this chart, through study at community college or university or through training programs offered by employers.

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## NOTE

This Training Path reflects current occupations in the electronics industry. Because of rapid changes in the industry, it can only be a guide; we suggest you investigate these careers further before making a decision.

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		OCCUPATIONAL FUNCTIONS	TRAINING ENTRY STANDARDS	TRAINING PATHS
SCIENTISTS (Research)	PHYSICIST/CHEMIST/MATHEMATICIAN CCDO 2113-110, -122, -146, -158; 2111-122; 2181-130	Conducts research into various fields of electrical and electronic phenomena and applies results of this research to practical electronic problems.	Grade 13 with senior mathematics and appropriate sciences	Honours Bachelor of Science specializing in either Physics, Chemistry or mathematics, depending on career goals. A Masters or Doctorate degree may be required for more advanced research positions.
ENGINEERS (Research and Manufacturing)	RESEARCH ENGINEERS Electrical and Electronic CCDO 2144-114	Applies scientific knowledge of Physics/Chemistry/Mathematics to the design and development of scientific and commercial equipment and processes.	Grade 13 with senior mathematics and appropriate sciences	Bachelor Degree in applied science and two or more years experience under the direction of a professional engineer. To be recognized as a Professional Engineer, must have registration with a provincial association of professional engineers. A Masters or Doctorate degree may be required for research in advanced development and design work.
	DESIGN & DEVELOPMENT ENGINEERS Electrical and Electronic CCDO 2144-110	Designs and develops circuits for the manufacture and installation of electrical and electronic equipment.		
	CHEMICAL ENGINEERS (Silicon chip development) CCDO 2142-110, -114	Designs and prepares specifications for the erection and operation of chemical plants and control systems for the commercialization of new or improved products or processes. May be concerned with the development and design of one particular product or process i.e. silicon chip.		
	PRODUCTION ENGINEERS CCDO 2145-110, -134	Plans and oversees production facilities to promote their efficient, safe and economic use.		
	MECHANICAL ENGINEERS CCDO 2147-118	Arranges, supervises or conducts the study, design, development, construction, operation and maintenance of machines, mechanisms and processes.		
	FIELD ENGINEERS CCDO 2144-122	Studies design proposals, develops and supervises the manufacture, installation, testing, inspection, maintenance of electronic equipment, systems and components.		
TECHNICAL POSITIONS	ELECTRONIC TECHNOLOGISTS CCDO 2165-130	Performs technological functions in various aspects of electronics, primarily in support of research, design and development.	Grade 12 with senior physics, chemistry, mathematics and English	Graduation from a program in electronics engineering technology at a community college (3 years). Specialization courses offered at Ontario CAATs include: Biomedical, Computer Systems, Computers, Engineering, Nuclear Power and Control, Telecommunications, Power Control, Video etc.
	ELECTRONIC TECHNICIANS CCDO 2165-230	Performs technical functions in various aspects of electronics, primarily in support of installation, operation, maintenance, production and quality control.		Graduation from a program in electronics engineering technician at a community college (2 years). Specialization courses offered at some Ontario CAATs include: Accoustics, Avionics, Communications, Computer, Engineering, Medical Equipment, etc. Courses are also offered at Private Vocational Schools in Ontario.
	ELECTRONIC SERVICING PERSONS CCDO 8535-114	Repairs, examines, and tests electronic equipment such as radar, data processing, communications, sound reproduction, medical equipment etc.	Grade 10	Graduation from a community college certificate program (1 year or less in length) Courses include Cable Service and Maintenance, Colour Television, Communications, Industrial Control Mobile Radio, Radio/Hi-Fi/TV Servicing. May also be a graduate from a CAAT Technician or Technologist program (Grade 12 required). Courses are also offered at Private Vocational Schools. May also be a registered apprentice in "Radio and TV Service Technician" (4 years on-the-job training).
ASSEMBLERS	ASSEMBLERS CCDO 8534-000	Assembles equipment to manufacturers' standards.	Qualifications vary with each company	Company provides on-the-job training.



RELATED POSITIONS

EXECUTIVE CHEF

Executive Sous Chef 6120-128  
Head Chef 6121-112  
Food and Beverage Manager

CHEF DE PARTIE

Chef Entree 6121-120  
Chef Garde Manger 6121-119  
Chef Rotisseur 6121-117  
Chef Saucier 6121-116  
Chef Rotisseur 6121-115  
Banquet Chef 6121-113

CHEF/COOK GENERAL AND  
COOK--INSTITUTION

Sous-Chef 6120-129  
First Cook 6121-127  
Second Cook 6121-131  
Cook--Specialty Foods 6121-126  
Camp Cook 6121-132

BASIC COOK

Third Cook 6121-134  
Assistant Cook

KITCHEN HELPER

Executive Steward  
Kitchen Steward

PUBLICATIONS WHICH  
MAY BE HELPFUL

Apprenticeship and You

CAAT Chart

Private Vocational School listings

Horizons

They can be obtained from:  
Communications Services Branch  
Ministry of Education/  
Ministry of Colleges and  
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14th Floor Mowat Block  
Queen's Park Toronto



Ministry of Education  
Colleges and Universities

Hon. Bette Stephenson, M.D. Minister  
Harry K. Fisher, Deputy Minister

Food  
Preparation  
A Training Path

LINKAGE

Through Linkage, students receive partial or total credits for the Basic 15-week (CAAT) in-school portion.

CCDO NUMBERS

The numbers listed with occupational descriptions are classification numbers from the Canadian Dictionary and Classification of Occupations (CCDO). All occupational definitions are from the CCDO. This publication is available in most secondary schools, colleges, universities and public libraries.

UPGRADING

Upward mobility is possible from positions in lower classifications on this chart, through study at community college or university or through training programs offered by employers.

NOTES

Once a trainee has mastered the ability to perform a function with confidence, under little supervision, he/she is referred to as a Cook. Once a Cook supervises a number of Cooks, Kitchen Helpers or Short-Order Cooks, develops menus and is held accountable by management for food and labour costs, he/she is commonly referred to as Chef.

Due to the diversity of types of food service operations represented, it is often difficult to determine exactly where one job classification ends and another begins.



		OCCUPATIONAL FUNCTIONS		TRAINING ENTRY STANDARDS	TRAINING PATHS
ADVANCED COOK/ CHEF	EXECUTIVE CHEF CCDO 6120-127	Plans menus, estimates costs and supervises activities of Executive Sous-Chef, Sous-Chefs, Chefs de Partie, Cooks and other workers engaged in preparing and cooking foods for consumption in hotels, restaurants, hospitals, clubs and similar establishments. Plans menus and advises Chefs on size of portions. Reviews labour and food costs and alters menu to stay within budget. Confers with customers plans	for special occasions, such as weddings, parties and banquets. Arranges for equipment purchases and repairs. Meets with establishment management to discuss problems and future plans. Demonstrates special cooking techniques to staff Chefs or at conventions and public meetings. Normally would supervise several kitchens.	Equivalent to Grade 13 education Certified Journeyman Cook Must have proven management skills in order to supervise and control the kitchen	CAAT--Diploma: Competencies acquired during a two-year Culinary Management Program at a CAAT plus 4,000 hours of on-the-job experience.  OR  CAAT--Certificate: Competencies acquired during two 20-week (Basic and Advanced) Certificate programs (900 hours), plus 5,100 hours of on-the-job experience. (Some trainees in Certificate programs pay their own fees; others have their fees paid by the federal government under the Canada Manpower Training Plan; the training is the same in either case.)  OR  Apprenticeship: Competencies acquired during two 15-week (Basic and Advanced) programs at a CAAT (900 hours), plus 5,100 hours of on-the-job experience.
	CHEF DE PARTIE CCDO 6121-113 to 6121-120	Prepares, seasons, cooks, specialty items such as: sauces, roasts, buffets, salads, soups or prepares banquets, pastries. Directs and supervises activities of Cooks and other workers. Prepares dishes and demonstrates cooking techniques. Consults with other Chefs de Par-	tie regarding sauces and other foods required for planned dishes to co-ordinate cooking times. Discusses menu changes, use of surplus or left-over food and new recipes with Sous-Chefs or Executive Sous-Chef.		
	CHEF/COOK GENERAL CCDO 6121-111	Prepares, seasons and cooks food for consumption in hotels, restaurants, and similar establishments. Plan menus. Reads menus to estimate food requirements. Obtains food from storage. Adjusts thermostat controls to regulate temperature of oven, broilers, fryers, burners, pressure cookers, grills, roasters, steam kettles and other cooking equipment. Bakes, roasts, broils, grills, fries, poaches, stews, braises, boils, sautés, and steams meats, fish, vegetables and other foods. Adds	seasoning to foods during mixing or cooking according to personal judgement, experience and recipes. Observes, tastes and smells food being cooked to determine stage of cooking. Portions food, places in appropriate dishes, containers or pans, adds gravies and sauces, and garnishes to fill orders. Cleans or instructs cleaning staff to clean dishes, utensils, kitchen equipment and work area. Stores food in temperature-controlled facilities.	Desirable: Grade 12 Minimum: Grade 10 (Apprenticeship) Grade 8 (Canada Manpower Industrial Training Program)	
	COOK--INSTITUTION CCDO 6121-122	Prepares and cooks meals for crews on rail-ways, hospitals and ships for residents of institutions and for employees of institutions and similar establishments. Plans menu, using knowledge of foods in season and local availability. Cooks food in quantities according to menu and number of persons to be served.	Cleans, cuts and cooks meat, fish and poultry. Mixes ingredients according to recipe or uses prepared mixes to make pancakes, waffles, cookies, cakes, desserts and other foods for meals. Washes, peels, cuts, seeds and cooks vegetables. May prepare special diet or other foods, or prepare cafeteria-style meals.		
BASIC COOK	SHORT-ORDER COOK CCDO 6121-130	Prepares and cooks breakfast, lunch items and simple meals in restaurants, cafeterias, snack bars and similar establishments. Places cooked items on plates, gives them to service em-	ployees or serves customers. Stores and checks food supplies and maintains records. Accepts payment for food, if required.	Grade 10 (Apprenticeship) Grade 8 (Canada Manpower Industrial Training Program)	CAAT--Certificate: Competencies acquired during a 20-week Basic certificate program and 1,550 hours of on-the-job experience.  OR  Apprenticeship: Competencies acquired during a 15-week Basic program (450 hours) plus 1,550 hours of on-the-job experience.
	THIRD COOK CCDO 6121-134	Assists Cooks in food preparation and cooks foods for consumption in dining rooms, restaurants, hospitals and similar establishments.	Performs cooking duties similar to those of Cooks <u>under supervision</u> . Washes, peels and seeds.	Must have had exposure to working in the kitchen.	
KITCHEN HELPER	KITCHEN HELPER Dishwasher, Silverman, Scullion CCDO 6198-134	Maintains kitchen work areas and restaurant equipment and utensils in clean and orderly condition. Sweeps and mops floors. Washes walls, tables, refrigerator and meat blocks. Segregates and removes trash and garbage and places it in designated containers. Washes pots, pans and trays by hand. Scrapes food	from dirty dishes and silver, washes them by hand or places them in racks or on conveyor to dishwashing machine. Transfers supplies and equipment between storage and work areas. May wash and peel vegetables using knife or peeling machine.	No restrictions	Depends on employer



## New ADM for MCU

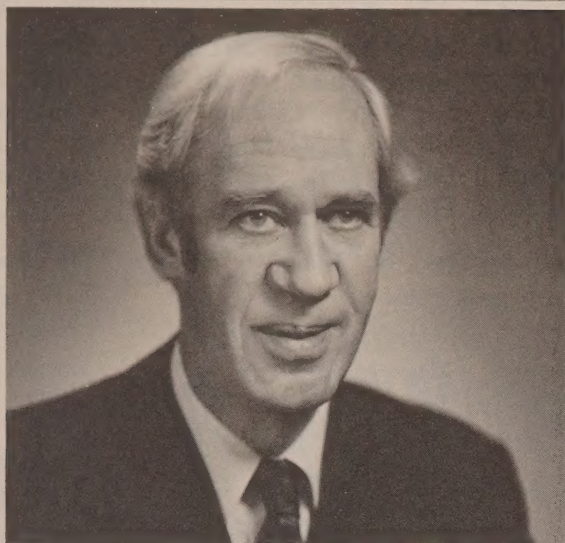


Photo by Belair, Kitchener

Kenneth E. Hunter, formerly president of Conestoga College in Kitchener, is now the new Assistant Deputy Minister for the Skills Development Division of the Ministry of Colleges and Universities.

Mr. Hunter succeeds T.P. Adams, now the Assistant Deputy Minister of the Administration and Planning Division of the Ministry of Colleges and Universities.

Mr. Hunter's credentials include a long list of prestigious business and technical affiliations. Mr. Hunter is a physicist and engineer and has belonged to such organizations and committees as The American Institute of Astronautics and Aeronautics; The American Management Association and The Society of Manufacturing Engineers. Mr. Hunter was also a Commissioner of the Ontario Manpower Commission.

Mr. Hunter's appointment was effective September 8, 1981.

## EST takes off!

Recent statistics on Employer Sponsored Training (EST) activities show a dramatic increase in the number of trainees during 1980-81. As the following chart and table illustrate, registrations during 1980-81 rose by more than 300% to 2,884 trainees. Employer participation jumped by 385% to 931 companies.

The most significant increases were in the occupations of Industrial Maintenance Mechanic (Millwright) and Machinists. They experienced increases of 356% and 438%, respectively.

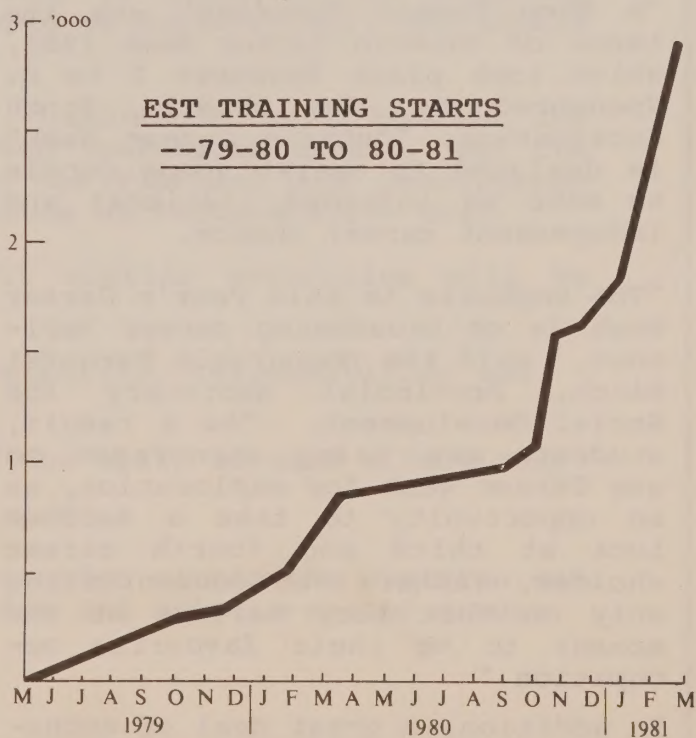
From March 31, 1981, to July 31, 1981, a further 384 trainees were registered under Letters of Intent. In addition, 1,108 trainees are registered under EST, but not on a Letter of Intent; 70 trainees are enrolled in the HITAC project; 75 trainees are registered as a result of the enhanced funding program; 238 trainees quit; and 350 trainees graduated.

In total, EST has registered 3,329 trainees, as of July 31, 1981.

### EST PERFORMANCE--79-80 TO 80-81

	79-80	80-81	Change
<b>Employers:</b>	192	931	385%
<b>Trainees:</b>			
Tool & die maker	240	680	183%
Mould maker	82	171	109%
Machinist	162	871	438%
Industrial maintenance mechanic	180	820	356%
Instrument mechanic	47	112	138%
Fitter-welder	0	210	N/A
<b>TOTAL TRAINEES</b>	<b>711</b>	<b>2,884*</b>	<b>306%</b>

\* Includes 20 industrial electrician trainees.



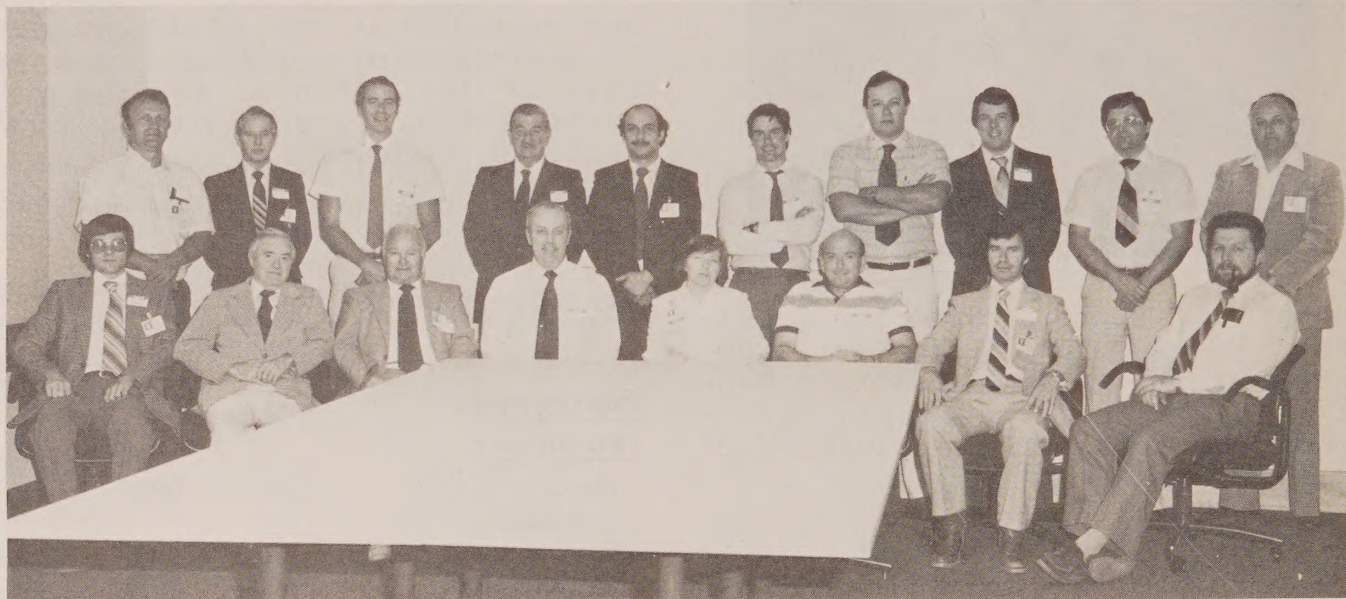


## Regional CITC meeting held

Representatives of seven CITCs met in Peterborough, September 1, for a one-day regional meeting. Eighteen participants, representing committees from Bancroft, Durham, Haliburton, Northumberland, Peterborough, Quinte and Victoria spent the day reviewing their past and pro-

jected activities and exploring issues of mutual concern. The delegates agreed that such meetings afford a further forum for communication and problem-solving, and agreed to plan another regional meeting in the future.

Photo courtesy of Canadian General Electric.



Standing (left to right): Morley Bell, Roy Shipard and Dave Moffat (Peterborough); Jack Burns (MCU); Bill Fields (MCU); John McRae and Jack Haynes (Bancroft); Bill Hay and Gord McRae (Durham); Ian Wilson (Victoria); Sitting (left to

right): Kim Emmerson (Haliburton); Harry Tresise (Durham); Herb Simpson (Victoria) Rod McLeod (CEIC); Arleen Douglas (Bancroft); Ray Smith (Victoria); Terry O'Shea and Brian Riden (Quinte); Absent: Bernie Paziuk (Northumberland)

## ONTARIO Career Week A STEP TOWARD TOMORROW November 2-8, 1981

"A Step Toward Tomorrow" was the theme of Ontario Career Week 1981, which took place November 2 to 8. Sponsored by the Ontario Youth Secretariat, "Ontario Career Week" is designed to assist young people to make an informed, rational and independent career choice.

"The emphasis in this year's Career Week is on broadening career horizons," said the Honourable Margaret Birch, Provincial Secretary for Social Development. "As a result, students are being encouraged to use Career Week for exploration, as an opportunity to take a serious look at third and fourth career choices, rather than concentrating only on what they believe at the moment to be their favourite occupation."

In addition, a great deal of empha-

sis is being placed on examining roles which are non-traditional. With the reality that six out of ten women are participating in the work force for up to thirty years, and the limited employment opportunities for both men and women in certain sectors, young people must search out occupations which they might not have examined previously.

"A Step Toward Tomorrow means just that ... one step at broadening a young person's horizon. The process is a continuing one, and it will continue long after Career Week is over. Events such as Career Week are designed to help young people explore careers in which they can be satisfied and productive. We are asking the public to help Ontario's young people take A Step Toward Tomorrow."



# NEW DIVISION CREATED

The Ministry of Colleges and Universities has formed the Skills Development Division to be responsible for devising, co-ordinating and delivering a highly responsive system of programs and services to ensure that the need for skilled workers in Ontario is met.

The MISSION of the Skills Development Division is to contribute to Ontario's economic growth by assisting employers and individuals to achieve their skills development goals. The Division has set the following AIMS:

- To provide expanded opportunities for skill development through a responsive training system by using resources in community organizations, business and industry, and public and private institutions.
- To align skill development opportunities with the needs of individuals, business and industry, provincial economic priorities and national goals.
- To permit the development of skills in a continuum, ranging from the the simple to the complex, by continuing the integration of skill development systems and educational systems.
- To promote the acceptance and use of competency-based systems with multiple access and exit points.

To give effect to this mandate, a new form of organization is necessary; therefore, the former Apprenticeship Branch, Manpower Training Branch and the Training Co-ordination Office will be dissolved.

The new organization of the division will reflect its client orientation. The division is committed to assisting employers, employees and young people to achieve their own skills development goals.

There will be a clear distinction made between the "line" function, carried out by the Operations Branch, and the "staff" function, carried out by the Planning and Development Branch. The Division will also include an Administrative Unit.

Within the Division, all similar activities will be grouped together to ensure:

- clear delegation of authority, responsibility and accountability
- that the expertise of the staff is used effectively
- a reasonable span of control
- improvement of communication within the Division and with government agencies and private-sector groups.



The Division will be responsible for the following:

- Apprenticeship Training
- Modular Training
- Employer Sponsored Training
- Training in Business and Industry
- programs offered in community colleges and industry under the federal Adult Occupational Training Act
- Ontario Career Action Program
- Linkage

The Operations Branch will be responsible for the delivery of all Divisional programs. Delivery will be effected through 11 Regional Offices and a total of 28 points of service throughout Ontario, as well as the colleges of applied arts and technology. All communication with client groups and delivery organizations, such as officials of community colleges and the Canada Employment and Immigration Commission, will, therefore, take place through this branch--thus ensuring a co-ordinated approach to all program and service delivery and timely response to client needs.

The Operations Branch, headed by Director Hal Beggs, is also responsible for special initiatives, such as encouraging women to enter the skilled occupations, and liaison with the province's 63 Community Industrial Training Committees.

The Planning and Development Branch, headed by Director Lawrie Kerridge, will be responsible for the development of Divisional and program policies and strategic plans. It will also carry out research into skills imbalances in the workforce, will identify the need for new skills development programs and will manage the development of the necessary curriculum and standards. It will also evaluate the efficiency and effectiveness of skills development programs.

The Administrative Services Unit, headed by a General Manager, will provide common services to both branches. One of its major tasks will be to maintain and co-ordinate financial and other management data.

The Division will be headed by an Assistant Deputy Minister (ADM), reporting to the Deputy Minister of Education and College and Universities. The ADM is Kenneth E. Hunter, formerly president of Conestoga College of Applied Arts and Technology in Kitchener-Waterloo, Ontario.

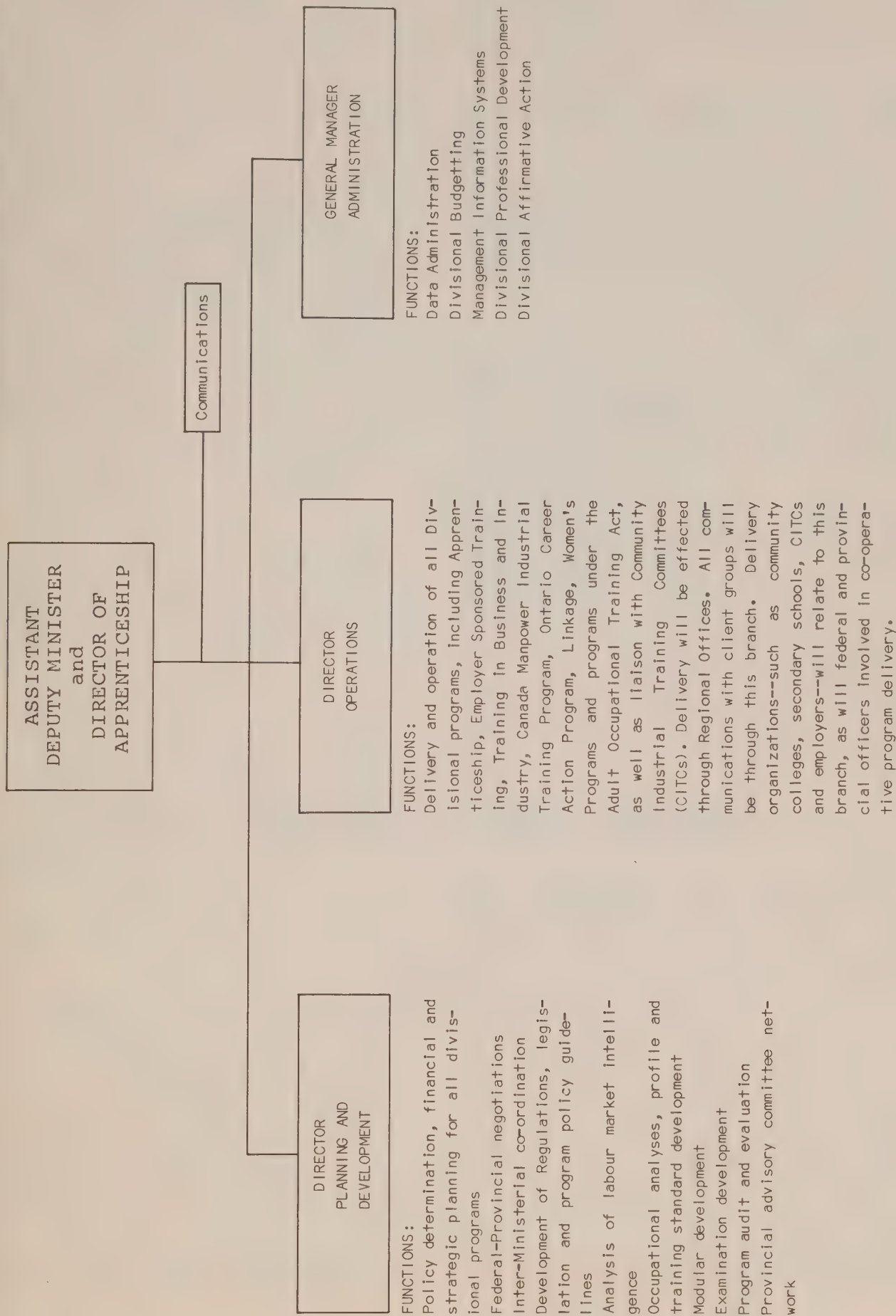
The Assistant Deputy Minister will also be the Director of Apprenticeship, for the purposes of the Apprenticeship and Tradesmen's Qualifications Act.

The Office of the Assistant Deputy Minister will be responsible for the development of communications strategies and programs to inform all clients of the benefits of skills development programs.

Additional details of the structure of the Skills Development Division are provided in the organizational charts.

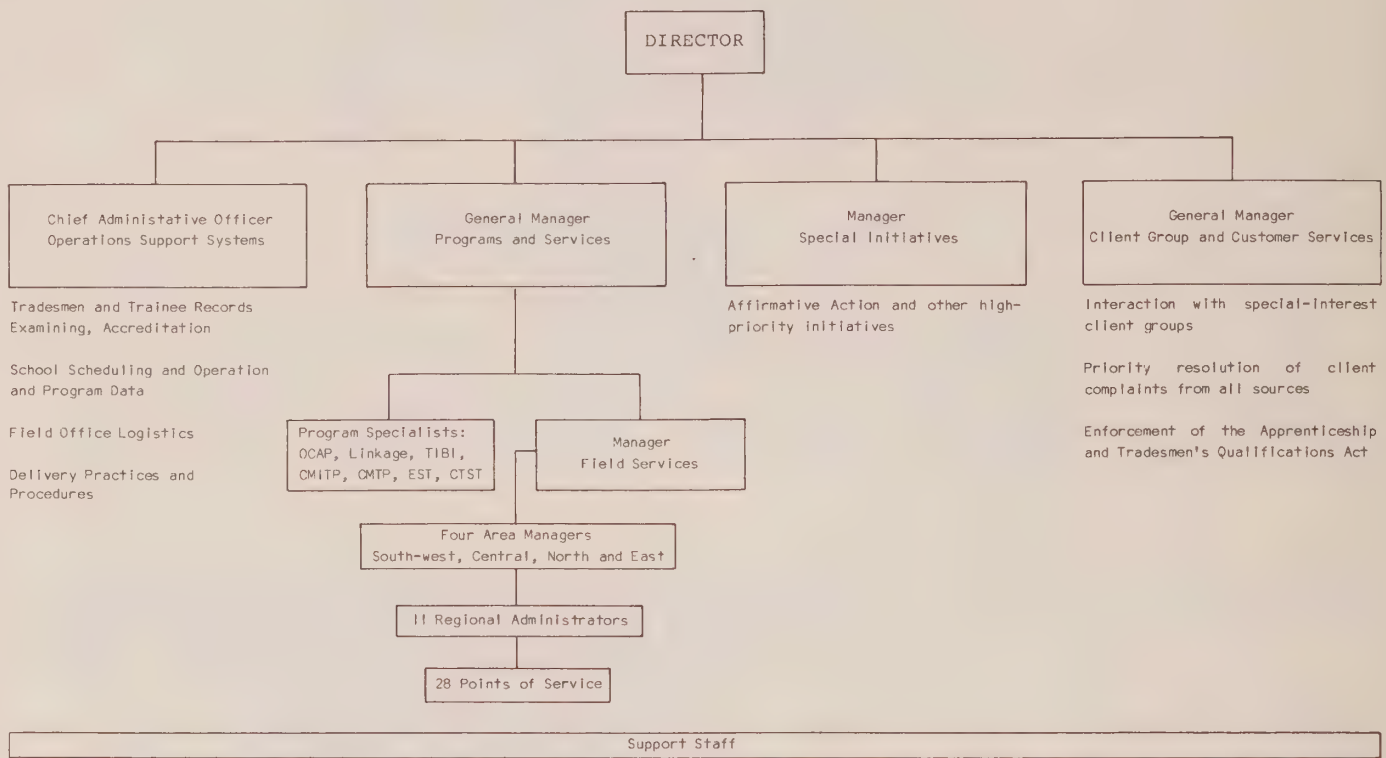


# SKILLS DEVELOPMENT DIVISION

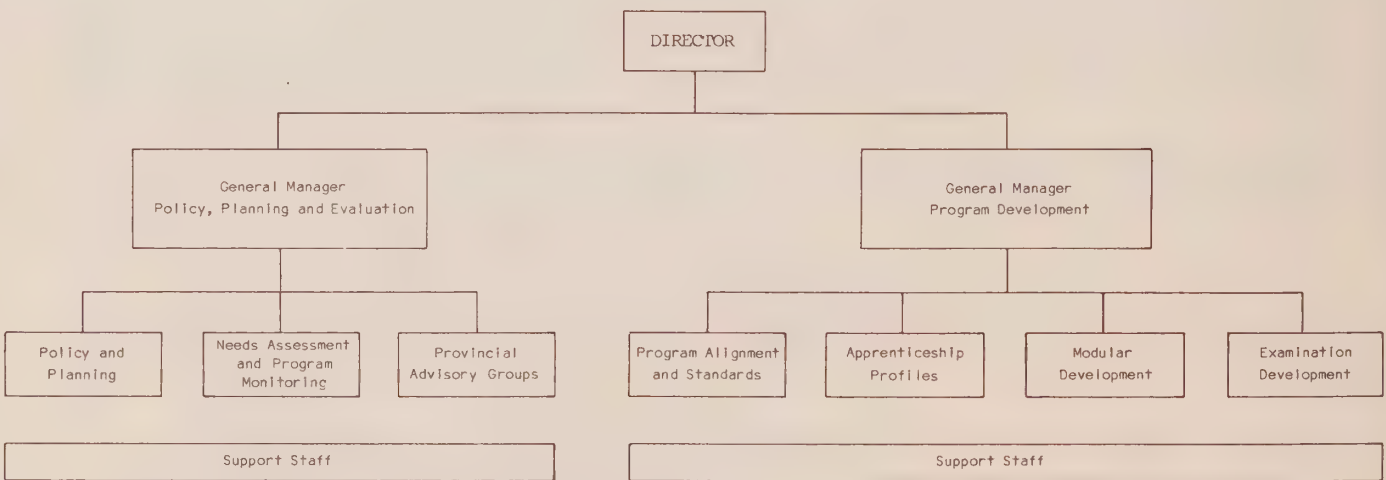




# OPERATIONS BRANCH



# PLANNING AND DEVELOPMENT BRANCH





## The "chip" may lead to unemployment

Technological change based on the silicon chip could put "nearly a million women" out of work, according to "Women and the Chip", written by Heather Menzies.

Technology, while generating productivity improvements, is creating a declining demand for clerical workers, Ms Menzies says. The vast majority of persons working in occupations involving information manipulation and related clerical work--secretaries, filing and office clerks, bank tellers, cashiers, keypunch operators, telephone operators, mail handlers and related supervisory positions--are women. These occupations will be most affected by technological change.

At the same time, female participation in the labour force is growing. It has increased from 23.2% of all women in 1953, to 48.9% in 1979, and may increase to 60.8% by 1990.

"This increasing divergence between, on the one hand, a growing supply of female clerical labour, and on the other, a rapidly collapsing clerical labour demand, could, unless appropriate measures are taken, lead to nearly a million women being without employment by 1990," Ms Menzies says.

The study's general conclusions are as follows:

- Technological change, while threatening to reduce clerical employment, is stimulating employment in an expanding range of new professional, specialist and technical information-related occupations. The study reports a growing skills gap between clerical-type information work, which is in decline, and professional information work, which is in demand. The gap is reducing the prospect of upward mobility for women in clerical positions.
- Secretarial job content has shifted to more value-added assignments, such as research and

analysis. This phenomenon suggests that secretaries will need better human relations skills, as well as more technical and general knowledge.

- Case studies in the report reveal a reduction of clerical functions and an amalgamation of formerly distinct clerical functions into new jobs, resulting in a reduction in the overall requirement for clerical workers. There was also an overall reduction in the clerical labour content of information related work.
- The study shows a marked reduction in the need for supervisors. Performance supervision is now done by computer monitoring. Staff training is now being done by computer aided instruction (CAI).
- There are fewer clerical job openings and more unfilled professional vacancies. As clerical employment declines, part-time work become more important.
- Structural barriers to upward mobility are erected due to management indifference to part-time workers and lack of technical knowledge on the part of employees.
- There is concern over a lower quality of working life.
- The study identifies the following occupations as having good future prospects: electrical and electronics engineers, technologists and technicians; systems analysts; senior analysts; senior programmers; technical programmers; systems programmers; data processors; data encoders; specialists in graphics telecommunications, hardware, training and sales positions related to informatics applications and computer microprocessor-based systems.

A copy of the study is available from: The Institute for Research on Public Policy  
2149 MacKay Street  
Montreal, Quebec H3G 2J2

Prepared by Barry Pervin



## The Cornwall Connection

If individuals can have personalities, why can't collections of individuals? The Stormont Dundas & Glengarry CITC has a personality--"aggressive".

From its inception, the Committee has been a driving force in Cornwall and environs, which includes a surprisingly large and diverse cross-section of industrial activity. The CITC's attitude is "of course it can be done!" and, more often than not, IT IS.

Following several exploratory meetings, the S.D. & G. CITC was formed in 1979, under the chairmanship of W.D. (Bill) Mitchell. Almost immediately, a cohesive spirit of enthusiasm replaced earlier resentment and frustration. The action-oriented Cornwall Connection quickly completed a needs survey and launched its first training endeavour.

To meet the community's most pressing short-term need, the CITC formed a curriculum sub-committee and drafted a training proposal to train fully qualified machinists and industrial mechanics. On January 29, 1980, a Letter of Intent was signed by the Committee and both levels of government, formalizing the program. One month later, the first trainees entered the institutional portion of their training program at St. Lawrence College. But, long-term needs were not left to chance. A detailed analysis of the statistical information led the Committee to study the need for fitter-welders. Again, demanding time-lines were set for the sub-committees and work began in earnest. Design and organization work proceeded on schedule and initial training was expected to commence in the fall of 1981.

The S.D. & G. Committee has succeeded, largely because the Committee is a truly broad-based team effort. Not only does the Committee include representatives from a large percentage of the industries of the area, it also has strong support from labour. In addition, the Com-

mittee has created a close-working relationship with its local college, with the local board of education and with both levels of government.

Electronics training is assuming an increasingly important priority among most industries of the Cornwall area. With support from the S.D. & G. Committee, an advanced, three-year micro-processor technologists course will begin in Cornwall this year at St. Lawrence College. It is expected that graduates of this course will keep Cornwall's industries in the forefront of this developing industry.

The progress and well-being of its trainees is a continuing concern for the S.D. & G. Committee. Not content with just initiating the training, the Committee has taken steps to monitor and evaluate the training process. It is hoped that the committee, in conjunction with Mohawk and St. Lawrence Colleges, will be able to provide field validation testing for newly developed testing and evaluation procedures in machinist training and has developed procedures and documentation for monitoring the individual progress of each trainee.

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## New Letters of Intent signed

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The following is a list of new Letters of Intent signed:

Cambridge	March 18, 1981
Victoria	May 5, 1981
Quinte	May 19, 1981
Kitchener-Waterloo	May 26, 1981
Timmins	June 12, 1981
Halton	June 25, 1981
Air Industries Association of Canada	July 24, 1981
Muskoka	August 10, 1981
East Algoma	September 30, 1981

A Letter of Intent is a document endorsing a Community Industrial Training Committee's intention to train people in certain occupations and under certain defined terms, agreed to with both Federal and Provincial Governments.



## Linkage II Electronics Project is under way

The Electronics Linkage II pilot project has been initiated to test the feasibility of aligning secondary school and community college electronics programs.

Electronics was selected as a Linkage II project because:

- the career opportunities in the electronics industry are expanding rapidly, in both the manufacturing and service sectors;
- most of the colleges offer electronics programs; and
- most secondary schools have at least one electricity/electronics course.

Unlike Linkage I--which provides credit towards apprenticeship occupations--Linkage II pilot projects will test the feasibility of providing credit toward community college programs for competencies acquired in secondary school.

Work on the project began in November, 1980, when college officials from the North, East, West and Central region agreed that secondary and college electronics programs could and should be aligned. The first group of secondary school and college electronics teachers who met in November to discuss the pilot project came from four Metropolitan Toronto Boards of Education and George Brown College. This group decided that a detailed resource document--describing all the basic electronic objectives and standards--was required before discussion of alignment could take place. Since no such resource could be identified, George Brown College agreed to produce a document consisting of Performance Objectives, Evaluation Criteria and corresponding test items for basic electronics. This document was completed on March 31, 1981, and validated by industry, college and secondary school evaluation committee members.

While the resource document was being developed, representatives of

CAATs, school boards and individual schools in the four regions were recommended, approved and informed of progress in preparation for the first meeting of the Provincial Electronics Steering Committee on May 25, 1981.

On May 25, the representatives began reviewing the contents of the resource document to determine the feasibility of constructing a core electronics program which could align secondary school and CAAT electronics programs. The objectives of the committee are to identify core standards which can be met in secondary school programs and to assess the type of credit which might be given for achievement of these performance standards at the CAAT. During the pilot project, which will be tested during 1981-82, only selected committee representatives and their institutions will participate.

ELECTRONICS, a supplement to the SKILLS Newsletter, will keep interested parties informed about the progress of pilot project developments and findings. Persons wishing to receive the ELECTRONICS SUPPLEMENT should contact the Editor of SKILLS.

For further information about the Electronics Pilot Project, please contact the Project Co-ordinator, Mrs. A.G. Moore at the:

Planning and  
Development Branch,  
Queen's Park,  
M7A 1L2.

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## HIT is it in Halton

The Halton Industrial Training Committee (HIT) has to be one of the province's fastest-acting Community Industrial Training Committees.

"In eight months, the committee formed itself, conducted a manpower needs analysis, and began a training program," says HIT Chairman Chuck Morris, plant manager of Oakville's Kaiser Refractories. "We proved that solutions to a manpower shortage can be found in months--not years," he says.



The 77-member committee was formed in October, 1980, largely because of the efforts of Muriel Johnston, now secretary-treasurer of HIT.

HIT signed a Letter of Intent with the federal and provincial governments on June 25, 1981.

Under the Letter, 23 employers in the Halton/Burlington area are training 60 employees--33 as fitter-welders and the remainder as machinists, tool and die makers, mould makers and industrial maintenance mechanics. The training will be conducted on a day-release, rather than on a block-release, basis.

"We prefer day release," Morris says, "because it is less disruptive to the work flow than block release; day release provides for closer integration between in-school and on-the-job training and enables the employer to monitor the quality of in-school training." The in-school training is being offered by Sheridan College of Applied Arts and Technology.

HIT is receiving funding under Employer Sponsored Training. "The addition of EST funding tipped the scales," Mr. Morris says. "Without EST, training was not economically viable; with the EST funds, training makes good economic sense."

The HIT Committee has also been working in close association with the Peel Industrial Training Advisory Committee (PITAC) and Sheridan College to ensure that training programs designed to meet the needs of both these committees is consistent with the capabilities of the college. To date, this tri-partite arrangement is working well.

The HIT Committee is another excellent example of industry, education and governments working collectively toward a common objective. Cooperation among all parties has been outstanding thus far and has proven that the road between the identification of the problem and the solution to the problem need not be excessively long.

By Scott Macivor

## Skills Training on view at CNE

"Training . . . Investing in Your Future" was the theme of the Manpower Training Branch display at the Canadian National Exhibition, this fall.

The display was designed to inform the public about Ontario government activities to solve Ontario's present, predicted and potential skills shortages.

The display, part of the Ontario Government exhibit outlining the BILD (Board of Industrial Leadership and Development) initiative, focussed on trades training in high-technology industries.

The centrepiece of the display was an enlargement of a silicon chip. General information was provided by two three-minute audio-visual presentations. More detailed program information was available from a word-processor, which visitors operated.



The Honourable William G. Davis, Premier, with the help of Dr. Mac the robot, opened the Ontario Government Futuredome at the Canadian National Exhibition on August 19, 1981.

## Métiers

METIERS, la version en français du 'SKILLS', est disponible sur demande auprès de l'éditeur.

If you know of anyone who you feel would enjoy receiving SKILLS, please notify:

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